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APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/551,155 09/28/2005 Barry E Jones 78104096/N17528 5440 07/13/2007 **EXAMINER** Craig A. Fieschko DeWitt Ross &I Stevens COSIMANO, EDWARD R 8000 Excelsior Drive, Suite 401 ART UNIT PAPER NUMBER Madison, WI 53717-1914 2863

DELIVERY MODE

PAPER

MAIL DATE

07/13/2007

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)	
Office Action Summary		10/551,155	JONES ET AL.	
		Examiner	Art Unit	
		Edward R. Cosimano	2863	
The MAILING DATE of this communication appears on the cover sheet with the correspondence address				
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS,				
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).				
Status				
1)⊠	Responsive to communication(s) filed on 28 Se	eptember 2005.		
·—	This action is FINAL . 2b)⊠ This action is non-final.			
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is			
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.				
Disposition of Claims				
4)⊠ Claim(s) <u>1-16</u> is/are pending in the application.				
4a) Of the above claim(s) <u>none</u> is/are withdrawn from consideration.				
5) Claim(s) is/are allowed.				
•	6) Claim(s) 1-16 is/are rejected.			
7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement.				
o, are caspect to recentarion amares election requirement.				
Application Papers				
9) The specification is objected to by the Examiner.				
10)⊠ The drawing(s) filed on <u>28 September 2005</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.				
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).				
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.				
Priority under 35 U.S.C. § 119				
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)⊠ All b)□ Some * c)□ None of:				
1. Certified copies of the priority documents have been received.				
2. Certified copies of the priority documents have been received in Application No				
3. Copies of the certified copies of the priority documents have been received in this National Stage				
application from the International Bureau (PCT Rule 17.2(a)).				
* See the attached detailed Office action for a list of the certified copies not received.				
Attachment(s)				
	ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTO-948)	Pape	view Summary (PTO-413) r No(s)/Mail Date	
3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 09/28/2005. 5) Notice of Informal Patent Application 6) Other:			• •	

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1. The Oath/Declaration filed on 13 March 2006 and the replacement Abstract as filed on 28 September 2005 are acceptable to the examiner.

- 2. Applicant's claim for the benefit of an earlier filing date pursuant to 35 U.S.C. 119(e) and 35 U.S.C. 120 is acknowledged.
- 2.1 Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
- 3. The examiner has considered the prior art cited in the base applications.
- 4. The combined set of drawings containing 6 sheets of 8 figures numbered as figure 1, 2, 3,
- 4, 5, 6, 7 & 8 as presented in the set of drawings filed on 28 September 2005 are acceptable to the examiner.
- 5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

- 5.1 Claims 1-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
- 5.1.1 It is noted that the disclosure presents a disclosed utility for the invention of:
 - A) process/method claims 1-6, 15 & 16 as a process/method comprising a sequence of steps/functions/actions that when taken as a whole provide the useful and beneficial function of determining the condition of a machine/process or material/structure that wears or deteriorates over time from being used; and
 - B) machine/system/apparatus claims 7-14 as a machine comprising one or more structures that when taken as a whole achieve the useful and beneficial function of determining the condition of a machine/process or material/structure that wears or deteriorates over time from being used.
- 5.1.2 It is further noted that as recited:
 - A) claims 1-6, 15 & 16 when take as a whole are directed to a process/method that is intended to achieve the claimed utility of determining the condition of a machine/process or material/structure that wears or deteriorates over time from being used; and

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B) claims 7-14 when take as a whole are directed to a machine that is intended to achieve the claimed utility of determining the condition of a machine/process or material/structure that wears or deteriorates over time from being used.

- 5.1.3 In regard to each of the pending claims while taking each claim as a whole and interpreting the claims as the claims could reasonably be interpreted by one of ordinary skill at the time the invention was made as guided by the written description, it is noted that one of ordinary skill at the time of the invention could reasonably make the following observations in regard to the interpretation of each of the pending claims.
- 5.1.3.1 In regard to the recited utility of independent/base claims 1, 7 & 15, it is noted that these claims recite an intended field of utility for the invention recited as a method in claims 1 & 15 and as a machine in claim 7 of determining the condition of a machine/process or material/structure that wears or deteriorates over time from being used.
- 5.1.3.2 In regard to the limitations of independent/base claim 1, it is noted that:
 - A) the first action performed as recited in process claim 1 is deemed to be a positive recitation of an action that is directed to nothing more than an action for performing the data/information gathering/processing function of "using an unspecified type of "acoustical sensor" to produce first data/information representing measurements of "acoustical" emission events that have been produced by a monitored machine/process or material/structure", since as recited the data/information that is gathered/produced by the performing the recited function (1) is positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.
 - B) the second action performed as recited in process claim 1 is deemed to be a positive recitation of an action that is directed to nothing more than an action for performing the data/information gathering/processing function of "using an unspecified machine/process to process the first data/information into second data/information that represents the period/interval of time between the measured "acoustical" emission events represented in the first data/information", since as recited the data/information that is

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gathered/produced by the performing the recited function (1) is positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.

C) the third action performed as recited in process claim 1 is deemed to be a positive recitation of an action that is directed to nothing more than an action for performing the data/information gathering/processing function of "using an unspecified machine/process to process the second data/information into third data/information that represents a determined statistical distribution of the determined periods/intervals of time between the measured "acoustical" emission events represented in the second data/information", since as recited the data/information that is gathered/produced by the performing the recited function (1) is positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.

D) the fourth action performed as recited in process claim 1 is deemed to be a positive recitation of an action that is directed to nothing more than an action for performing the data/information gathering/processing function of "using an unspecified machine/process to process the third data/information into fourth data/information that represents unspecified statistical parameter/characteristics of the statistical distribution of the determined periods/intervals of time between the measured "acoustical" emission events represented in the third data/information", since as recited the data/information that is gathered/produced by the performing the recited function (1) is positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.

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E) the fifth action performed as recited in process claim 1 is deemed to be a positive recitation of an action that is directed to nothing more than an action for performing the data/information gathering/processing function of "using an unspecified machine/process to process the fourth data/information into fifth data/information that represents an unspecified type of indication of an unspecified condition of the monitored machine/process or material/structure", since as recited the data/information that is gathered/produced by the performing the recited function (1) is not positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.

Hence, one of ordinary skill at the time the invention was made could interpreted claim 1 when taken as a whole as being directed to nothing more than a process for the abstract manipulation of data/information with out a claimed application of the results of the manipulation or claimed requirement that any of the recited structure or acts/functions are present or performed for any purpose not related to the manipulation of data/information.

- 5.1.3.3 The additional subject matter recited as dependent claims 2, 3, 4 & 6 is deemed to be directed to functional descriptive material that does not go beyond defining the nature of the steps/functions/actions that are used when performing the recited processing or gathering of data/information and hence does not alter the statutory nature of the invention recited as the invention in the base claims.
- 5.1.3.4 The additional subject matter recited as dependent claim 5 is deemed to be directed to both (A) nonfunctional descriptive material that does not go beyond merely defining the nature/source of the recited data/information that is to be used when performing the recited processing; and (B) functional descriptive material that does not go beyond defining the nature of the steps/functions/actions that are used when performing the recited processing or gathering of data/information; and hence does not alter the statutory nature of the invention recited as the invention in the base claims.
- 5.1.3.5 In regard to the limitations of independent/base claim 7, it is noted that:

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A) the first structure recited in machine claim 7 is deemed to be a positive recitation of an structure that is directed to nothing more than an structure for performing the data/information gathering/processing function of "using an unspecified type of "acoustical sensor" to produce first data/information representing measurements of "acoustical" emission events that have been produced by a monitored machine/process or material/structure", since as recited the data/information that is gathered/produced by the performing the recited function (1) is positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.

- B) the second structure recited in machine claim 7 is deemed to be a positive recitation of a structure that is directed to nothing more than a structure for performing the data/information gathering/processing functions of "using an unspecified machine/process to perform the data/information processing functions of:
 - (1) processing the first data/information into second data/information that represents a statistical distribution of the period/interval of time between the measured "acoustical" emission events in the first data/information;
 - (2) processing the second data/information into third data/information that represents unspecified statistical parameter/characteristics of the statistical distribution represented by the second data/information; and
 - (3) processing the third data/information into fourth data/information that represents an unspecified type of indication of an unspecified condition of the monitored machine/process or material/structure",

since as recited the data/information that is gathered/produced by the performing the recited function (1) is positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.

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C) the third structure recited in machine claim 7 is deemed to be a positive recitation of an structure that is directed to nothing more than an structure for performing the data/information processing function of "using an unspecified machine/process to output the fourth data/information representing an unspecified condition of the monitored machine/process or material/structure to an unspecified user for an unspecified purpose", since as recited the data/information that is gathered/produced by the performing the recited function (1) is not positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.

Hence, one of ordinary skill at the time the invention was made could interpreted claim 7 when taken as a whole as being directed to nothing more than a machine for the abstract manipulation of data/information with out a claimed application of the results of the manipulation or claimed requirement that any of the recited structure or acts/functions are present or performed for any purpose not related to the manipulation of data/information.

- 5.1.3.6 The additional subject matter recited as dependent claims 8, 9, 10 & 12 is deemed to be directed to functional descriptive material that does not go beyond defining the nature of the steps/functions/actions that are used when performing the recited processing or gathering of data/information and hence does not alter the statutory nature of the invention recited as the invention in the base claims.
- 5.1.3.7 The additional subject matter recited as dependent claim 11 is deemed to be directed to both (A) nonfunctional descriptive material that does not go beyond merely defining the nature/source of the recited data/information that is to be used when performing the recited processing; and (B) functional descriptive material that does not go beyond defining the nature of the steps/functions/actions that are used when performing the recited processing or gathering of data/information; and hence does not alter the statutory nature of the invention recited as the invention in the base claims.
- 5.1.3.8 The additional subject matter recited as dependent claims 13 & 14 is deemed to be directed to nonfunctional descriptive material that does not go beyond merely defining the

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nature/source of a recited structure that is to be used when performing the recited processing and hence does not alter the statutory nature of the invention recited as the invention in the base claims.

5.1.3.9 In regard to the limitations of independent/base claim 15, it is noted that:

- A) the first action performed as recited in process claim 15 is deemed to be a positive recitation of an action that is directed to nothing more than an action for performing the data/information gathering/processing function of "using an unspecified type of "acoustical sensor" to produce first data/information representing measurements of "acoustical" emission events that have been produced by a monitored machine/process or material/structure", since as recited the data/information that is gathered/produced by the performing the recited function (1) is positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.
- B) the second action performed as recited in process claim 15 is deemed to be a positive recitation of an action that is directed to nothing more than an action for performing the data/information gathering/processing function of "using an unspecified machine/process to process the first data/information into second data/information that represents the period/interval of time between the measured "acoustical" emission events represented in the first data/information", since as recited the data/information that is gathered/produced by the performing the recited function (1) is positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.
- C) the third action performed as recited in process claim 15 is deemed to be a positive recitation of an action that is directed to nothing more than an action for performing the data/information gathering/processing function of "using an unspecified machine/process to process the second data/information into third data/information that

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represents a determined statistical characterization of the determined periods/intervals of time between the measured "acoustical" emission events represented in the second data/information", since as recited the data/information that is gathered/produced by the performing the recited function (1) is positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.

- D) the fourth action performed as recited in process claim 15 is deemed to be a positive recitation of an action that is directed to nothing more than an action for performing the data/information gathering/processing function of "using an unspecified machine/process to process the third data/information into fourth data/information that represents an unspecified type of monitoring for and unspecified purpose of the unspecified statistical characterization represented in the third data/information", since as recited the data/information that is gathered/produced by the performing the recited function (1) is positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.
- E) the fifth action performed as recited in process claim 15 is deemed to be a positive recitation of an action that is directed to nothing more than an action for performing the data/information processing function of "using an unspecified machine/process to process the fourth data/information into fifth data/information representing an unspecified type of generated alert to an unspecified type of user for an unspecified purpose", since as recited the data/information that is gathered/produced by the performing the recited function (1) is not positively recited as being provided as input for use by latter processing that is positively recited as being performed either internally or externally of the recited invention; and (2) is positively recited as being

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processed/gathered by any specific machine or process that would perform any other function beyond the act/function recited as data/information gathering/processing.

Hence, one of ordinary skill at the time the invention was made could interpreted claim 15 when taken as a whole as being directed to nothing more than a process for the abstract manipulation of data/information with out a claimed application of the results of the manipulation or claimed requirement that any of the recited structure or acts/functions are present or performed for any purpose not related to the manipulation of data/information.

- 5.1.3.10 The additional subject matter recited as dependent claim 16 is deemed to be directed to functional descriptive material that does not go beyond defining the nature of the steps/functions/actions that are used when performing the recited processing or gathering of data/information and hence does not alter the statutory nature of the invention recited as the invention in the base claims.
- 5.1.3.11 The invention recited in claims 7-16 recites an action/function that implies outputting, for example displaying, the results of some of the processing of claims to an operator/user by using the phrase "outputting the results of the indication" in claims 7, 13 & 14 and the phrase "generating an alert" in claim 15. However, this recitation is deemed to be an insignificant concrete and tangible practical application of the result of the processing recited in these claims. As set forth above one of ordinary skill at the time the invention was made could interpret claims 7-16 as being directed to nothing more than a process/machine that is directed to a process/machine comprising nothing more than acts and structures that function to provide:
 - A) insignificant data/information gathering since the acts/functions as recited in the claim do nothing more than gather data/information for use in the processing that is latter recited in the claim, see In re RICHMAN, 195 USPQ 340 at 344 (CCPA 1977);
 - B) data/information processing that; (1) includes the use of the collected/gathered data/information, and (2) that lacks a positively recited concrete and tangible application of the results of the processing, see <u>In re WARMERDAM</u>, 31 USPQ2d 1745 at 1758-1759 (CAFC, 1994), and <u>STATE STREET BANK AND TRUST CO. v SIGNATURE FINANCIAL GROUP INC.</u>, 38 USPQ2d 1596 at 1602 (CAFC 1998); and

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C) the presentation of the results of the recited processing a data/information with out a positively recited requirement that the results of the processing be used by anyone or anything.

In view of the above fact situation, the when considering the same fact situation the Court has determined that a claim that is directed to nothing more than the abstract idea of collecting data/information, processing data/information and displaying/presenting the results of the processing as data/information to an user/operator is non-statutory, see (A) claim 5 of In re ABELE and MARSHALL, 214 USPQ 682 at 688 (CCPA 1982), which recited data/information processing and then displaying/presenting of the results of the data/information processing to an user and which the Court held was to be directed to non statutory subject matter; and (B) whereas a claim that collected, processed, and then used the results of the processing to perform another task outside of the processing by applying the results of the recited processing to perform another function in DIAMOND v. DIEHR AND LUTTON, 209 USPQ 1 at 11 (US SupCT, 1981), was held by the Court to be directed to statutory subject matter. Hence, the displaying of the results of processing as recited in the pending claims is deemed to not provide a concrete and tangible result for the results of the processing that is recited in the claims.

5.1.4 In view of the above characterization of claims 1-16, it can clearly be seen that, as these claims would be reasonably interpreted by one of ordinary skill at the time the invention was made, as merely conveying to one of ordinary skill at the time the invention was made a description of an invention that does not go beyond the gathering and manipulation of data/information and therefor merely sets forth the abstract ideas of receiving and transforming data by processing/manipulating the data/information into other data/information, for example transforming numbers to numbers without:

A) requiring by explicitly reciting and achieving a claimed requirement that the results of the claimed invention be tangibly used in anyway by anyone or anything in order to achieve either:

- (1) a concrete and tangible useful result; or
- (2) a concrete and tangible useful practical application of either:
 - (1) the recited mathematical processing; or

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(2) the resultant numbers/data produced by the claimed invention;

or

B) reciting and achieving a physical transformation of one thing into something else.

Such a claimed invention consisting solely of data collection and processing or manipulating data/information, whether it is drafted as a machine or process or manufacture no matter how useful the claimed invention may appear, is deemed to be directed to an attempt by applicant to patent an abstract idea of processing/manipulating data/information which would preempt all uses of the processing recited as the claimed invention and therefore as set forth by the Court the claimed invention is deemed to be directed to non-statutory subject matter, see either (A) DIAMOND v. DIEHR AND LUTTON, 209 USPQ 1 at 8 (US SupCT, 1981), citing GOTTSCHALK v BENSON ET AL, 175 USPQ 673 (US SupCT, 1972), and PARKER v FLOOK, 198 USPQ 193 (US SupCT, 1978), at pages 7-8; or (B) In re WARMERDAM, 31 USPQ2d 1745 at 1758-1759 (CAFC, 1994); or (C) STATE STREET BANK AND TRUST CO. v SIGNATURE FINANCIAL GROUP INC., 38 USPQ2d 1596 at 1602 (CAFC 1998); or (D) In re RICHMAN, 195 USPO 340 at 344 (CCPA 1977); or (E) In re MAUCORPS, 203 USPQ 812 @ 815-816 (CCPA 1979), citing both In re JOHNSON, 589 F.2d 1070, 1077, 200 USPO 199, 206 (CCPA 1978), and In re <u>FREEMAN</u>, 573 F.2d at 1247, 197 USPQ at 472. Note also "Thus, a process consisting solely of mathematical operations, i.e., converting one set of numbers into another set of numbers, does not manipulate appropriate subject matter and thus cannot constitute a statutory process. In practical terms, claims define nonstatutory processes if they: consist solely of mathematical operations without some claimed practical application (i.e., executing a "mathematical algorithm"); or - simply manipulate abstract ideas, e.g., a bid (Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59) or a bubble hierarchy (Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759), without some claimed practical application." MPEP 2106, 2106.01 & 2106.02.

6. The following is a statement of reasons for the indication of allowable subject matter over the prior art:

A) the prior art, for example:

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(1) either McElroy (4,317,368) or Yoneyama et al (JP 60-78343 A) or Doi et al (JP 2005-21463 A) disclose a machine/process that provides the useful and beneficial function of using acoustical emissions to monitor a machine/process, where the operation of the machine/process is monitored in order to sense/detect the acoustical emission produced by the monitored machine/process. The sensed/detected acoustical emissions are then processed in order to determine the state of the monitored machine/process. Where in McElroy (4,317,368) the number of acoustical emissions that meet certain criteria and that have occurred with in a predetermined period/interval of time are indicative of the state of the monitored machine/process, and in Doi et al (JP 2005-21463 A) the trend in the changes of the acoustical emission is monitored and considered when determining the state of the monitored machine/process.

- B) however, the prior art does not fairly teach or suggest in regard to claims 1, 7 & 15 a process in claims 1 & 15 and a machine in claim 7 that provide the useful and beneficial function of determine the state of a machine/process or structure/material by providing structures in claim 7 and actions in claim 1 & 15 that perform at least the functions of:
 - (1) using an acoustical sensor to measure the acoustical emissions produced by a monitored machine/process or structure/material;
 - (2) determining a statistical distribution for the "inter-arrival times" of the measured acoustical emissions;
 - (3) determining the statistical parameters that describe the determined statistical distribution for the "inter-arrival times" of the measured acoustical emissions; and
 - (4) using the determined statistical parameters that describe the determined statistical distribution for the "inter-arrival times" of the measured acoustical emissions in order to determine the state of the monitored machine/process or structure/material.

Claims 2-6, which depend from claim 1, and claims 8-14, which depend from claim 7, are allowable over the prior art for the same reason.

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7. The examiner has cited prior art of interest, for example:

A) either Heath (3,345,861) or Shibata et al (JP 10-90235) disclose a machine/process that provides the useful and beneficial function of using acoustical emissions to test the state of a structure, where a machine/process is used to strike/load the structure and the resultant acoustical emission from the structure are sensed and processed to determine the state of the structure.

B) either Pohl et al (3,416,630) or Shimonishi (2006/0167656) discloses a machine/process that provides the useful and beneficial function of using acoustical emissions to test the state of a machine/process, where the operation of the machine/process is monitored in order to sense/detect the acoustical emission produced by the monitored machine/process. The sensed/detected acoustical emissions are then processed in order to determine the state of the monitored machine/process.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward R. Cosimano whose telephone number is 571-272-0571. The examiner can normally be reached on 571-272-0571 from 7:30am to 4:00pm (Eastern time).

- 8.1 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow, can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- 8.2 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ERC 07/09/2007

Edward Cosimano Primary Examiner